



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.        | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------------|------------------|
| 10/772,625   | 02/05/2004  | James Owen           | ORACL-01483US0             | 5660             |
| 80548  | 7590        | 01/12/2009           |                            |                  |
| Fliesler Meyer LLP<br>650 California Street<br>14th Floor<br>San Francisco, CA 94108 |             |                      | EXAMINER<br>SYED, FARHAN M |                  |
|  |             |                      | ART UNIT                   | PAPER NUMBER     |
|  |             |                      | 2165                       |                  |
|  |             |                      | MAIL DATE                  | DELIVERY MODE    |
|  |             |                      | 01/12/2009                 | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/772,625

**Applicant(s)**

OWEN ET AL.

**Examiner**

FARHAN M. SYED

**Art Unit**

2165

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10,15-26,29,31 and 36-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 10,15-26,29,31 and 36-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date (See Office Action).
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 10, 15-26, 29, 31, and 36-39 are pending. The Examiner acknowledges amended claims 10, 19, 29, and 31.

***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 26 August 2008 and 16 October 2008, respective, are being considered by the examiner.

***Response to Remarks/Argument***

3. Applicant's arguments with respect to claims 10, 13, 15-20, 22-26, 29, 31, 34, and 38-39 have been considered but are moot in view of the new ground(s) of rejection.

The Examiner's rejections of the claims, now set forth are in light of the applicant's arguments against the art applied, But applied in the modified position therefore, the arguments are deemed moot.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 10, 13, and 15-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 does not positively recite a particular machine or apparatus which would tie the claims together. Therefore the claim appears to fall under the judicial exception of an abstract idea which lacks a

useful, concrete, and tangible result. A claimed series of steps or acts for which there does not appear to be disclosed a result in a useful, concrete, and tangible result are not statutory within the meaning of 35 USC 101. In the instant case, the claims recite, "identifying," "communicating," "defining," "creating," and "storing." The Examiner notes that the limitation of storing content in one or more plurality of content repositories are directed to virtual content repositories, which according to Applicant's disclosure, see paragraph [0033], page 5 directed to programmable logic. However, no useful, concrete, and tangible result is disclosed in the instant application as originally filed. For example, "writing said data," "updating said data," "sending said data" being claimed at the end of the claim may comprise a useful, concrete, and tangible result. Absent such a disclosed result, however, the claims are not statutory.

Dependent claims 13 and 15-18 do not appear to cure the deficiency in independent claim 10 and therefore for reasons similar are rejected.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10, 13, 15-20, 22-26, 29, 31, 34, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable by Prompt, et al (U.S. Patent Pub. 2001/0034733 A1 and known hereinafter as Prompt) in view of Hotti et al (U.S. 6,970,876 and known hereinafter as Hotti).

As per claims 10, 19, 29, and 31, Prompt teaches a method for transferring content to a plurality of content repositories (i.e. *"A computer system having a hierarchical/relational translation system is provided for enabling information from unrelated heterogeneous relational computing systems to be accessed, navigated, searched, browsed, and shared over hierarchical computing systems."*)(see at least paragraphs [0018-0019]), comprising: identifying a content in at least one of a file system (i.e. *"In the described embodiments, users can search and/or browse the virtual directory to find the data needed or they can query the directory with simple commands to search for the information needed"*)( see at least paragraphs [0018-0019]) and a website by traversing the at least one of a file system and website (i.e. *"There are conventionally-known ways of indexing and addressing information on the Internet (also referred to interchangeably as the "Net") using an Internet directory. An Internet directory is an application service that generally performs information retrieval based on properties associated with the data of interest. Internet directories can store various types of objects, wherein each object is associated with a type of property or characteristic."*)(see at least paragraph [0005]); associating a schema with the content (i.e. *"...virtual directories of the present invention use schema-based data extraction to create a hierarchical object model."*)(see at least paragraphs [0089-0092, 0099-0101]); and communicating with a virtual content repository (VCR) (i.e. *"The virtual directory establishes a link between the two types of customer records and aggregates their data without changing the view. The aggregated records in the virtual directory constitute a "supercategory" of customers, which automates the process of searching for*

information in both source databases, and provides a unique way to index and address the data.”)(see at least paragraph [0115]) via an Application Programming Interface (API) to provide the content (i.e. “Using a standard Application Programming Interface (API) facilitates the mapping that allows navigation between the two unrelated databases.”)(see at least paragraphs [0115-0118]) and the schema to the VCR for inclusion in one or more of a plurality of content repositories (i.e. “More importantly, the same mechanism is able to operate on different schema to aggregate data and to provide a simple way to deliver a choice of views.”)( see at least paragraphs [0115-0118]), wherein the VCR integrates the plurality of content repositories into a logical repository (i.e. “Additionally, the VDS enables the aggregation of data from diverse heterogeneous databases”) see at least paragraphs [0116-0120]); storing the content and the schema in a node (i.e. “In doing so, for each Object selected, a node in the DirectoryView Tree is generated 1508. Each node describes the information needed to query the database 106.”)(paragraphs [0120-123]) in one or more of the plurality of content repositories (i.e. “In the embodiment shown in FIG. 4, network communication system 100b enables the translation of relational database objects and (logical) relationships to virtual directory entries that are useable with hierarchical network data models in accordance with the present invention.”)(see paragraphs [0120-0123; 0140-0155]); wherein the API presents a unified view of the plurality of content repositories as a single repository and enables navigation of the plurality of content repositories (i.e. Directory View Generator)( see at least paragraphs [0159-0163]; see also Figure 11, 14a, and 14b) and enables create, read, update, and delete (CRUD) operations to be performed on the plurality of content repository; wherein each content repository in the plurality of content repositories implement a Service Provider Interface (SPI) (i.e. schema manager application)(see at least paragraphs [0175-0184]) to integrate into the VCR (i.e. VDS)( see at least paragraphs [0159-0163, 0175-0184]); and wherein the API

and the SPI share the content model that represents combined contents of the plurality of content repositories (see at least paragraphs [0241-0267]).

Prompt does not explicitly teach defining a content model in the VCR, wherein the content model includes a plurality of content nodes and a plurality of hierarchy nodes; creating a content node for each of the plurality of content repositories wherein each content node identifies the content repository with which it is associated and wherein each content node has its own content schema which is metadata that describes the content node's properties; creating a hierarchy node for different types of content available in the plurality of content repositories wherein each hierarchy node is associated with one or more content nodes, and each hierarchy node is associated with its own hierarchy schema which is metadata that describes the hierarchy node's properties.

Hotti teaches defining a content model in the VCR (See HOTTI, Figure 9; and col. 9, lines 19-27, wherein this reads over "a hierarchic system where several database systems a, b, c have their respective schema management nodes"), wherein the content model includes a plurality of content nodes and a plurality of hierarchy nodes (See HOTTI, col. 6, lines 30-31, wherein this reads over "[t]he configuration management replicas may be full or partial copies"); creating a content node for each of the plurality of content repositories wherein each content node identifies the content repository with which it is associated (See HOTTI, Figure 9, Elements 921 a, b, and c; and col. 6, lines 52-66, wherein this reads over "[a]s part of the registration, the identification data, e.g. schema name, or the new application data node is sent to the configuration management master database node") and wherein each content node has its own content schema which is metadata that describes the content node's properties (See HOTTI,

Figure 9, Elements 921 a, b, and c; and col. 6, lines 52-66, wherein this reads over "[a]s part of the registration, the identification data, e.g. schema name, or the new application data node is sent to the configuration management master database node"); creating a hierarchy node for different types of content available (See HOTTI, Figure 9; and col. 9, lines 19-27, wherein this reads over "a hierarchic system where several database systems a, b, c have their respective schema management nodes") in the plurality of content repositories wherein each hierarchy node is associated with one or more content nodes (See HOTTI, col. 2, wherein this reads over "[a] schema is a representation of the structure of the database that illustrates what kind of data is stored in the database"), and each hierarchy node is associated with its own hierarchy schema which is metadata that describes the hierarchy node's properties (See HOTTI, Figure 2a, Elements 233 and 203; col. 6, lines 20-24, wherein this reads over "replicas of the configuration management master are stored into database server 201, 211, 221 of the database system"; and col. 7, lines 20-26, wherein this reads over, "schema name of the new application database is sent to the configuration management master database node").

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Prompt with the teachings of Hotti to include defining a content model in the VCR, wherein the content model includes a plurality of content nodes and a plurality of hierarchy nodes; creating a content node for each of the plurality of content repositories wherein each content node identifies the content repository with which it is associated and wherein each content node has its own content schema which is metadata that describes the content node's properties; creating a hierarchy node for different types of content available in the plurality of content repositories wherein each hierarchy node is associated with one or more content nodes, and each hierarchy node is associated with its own hierarchy schema



which is metadata that describes the hierarchy node's properties with the motivation to modify the content schemas and hierarchy schemas to create a virtual content repository..

As per claims 15, 26, and 36, Prompt teaches a method wherein the step of identifying the first content includes: extracting properties from one of: 1) a file; 2) a hypertext markup language (HTML) document; and 3) an Extensible Markup Language (XML) document (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claims 16, and 37, Prompt teaches a method wherein the step of associating the first schema with the first content includes: acquiring the first schema from at least one of: 1) a file; 2) a hypertext markup language (HTML) document; and 3) an Extensible Markup Language (XML) document (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claims 17, and 38, Prompt teaches a method wherein the step of communicating with the VCR includes: persisting in one of the plurality of content repositories the content and the schema (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claims 18, and 39, Prompt teaches a method wherein the step of communicating with the VCR includes: preserving in one of the plurality of content repositories hierarchical relationships between the first content and other content in the VCR (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claim 20, Prompt teaches a system further comprising: at least one second process that interacts with the first process; wherein the at least one second process provides to the first process the content and the schema corresponding to the content; and a third set of services that enables interaction between the at least one second process and the first process (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claims 21 and 23, Prompt teaches a system wherein: the third set of services provides a first function for directing the at least one second process to extract at least one property from the content (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b); and wherein a property is an association between a name and a value (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claims 22 and 24, Prompt teaches a system wherein: the at least one second process derives the schema from the content (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claim 25, Prompt teaches a system further comprising: at least one second process operable that locates the schema corresponding to the content (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

As per claim 28, Prompt teaches a system wherein: the first set of services and the second set of services share a content model (see at least paragraphs [0005, 0018-0019, 0089-0092, 0099-0110, 0115-0123, 0140-0155, 0159-0163, 0175-0184, and[0241-0267]; see also Figure 11, 14a, and 14b).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Park et al** (U.S. Patent Pub. 2004/0024812 A1) – teaches a content publication system supporting real-time integration and processing of multimedia content.

**Van Huben et al** (U.S. Patent 6,327,594 B1) – teaches a system that performs with a data manager and with an input from a user or pervasive computing device via an API a plurality of process on data residing in heterogeneous data

repositories of computer system including promotion, check-in, check-out, locking, library searching, setting and viewing process results, tracking aggregations, and managing parts, releases and problem fix data under management control of a virtual control repository having one or more physical heterogeneous repositories. The system provides for storing, accessing, tracking data residing in said one or more data repositories managed by the virtual control repository.

**Golshani et al** (U.S. Patent 5,806,066) – teaches a method for integrating the schemas of a plurality of independent and heterogeneous database management systems of a distributed database management system (DDBMS). The DDBMS includes a computer system in which the DDBMS resides and one or more subservient computer systems. The schemas of two of the independent database systems are fetched from the subservient computer systems. The schemas are converted from a relational database form to an object-oriented form. The schemas are then normalized and displayed graphically. Equivalencies are identified and the two schemas are integrated. These steps are repeated until the schemas of all data bases to be integrated have been integrated into a single integrated, or global schema. The global schema is then converted from the object-oriented form to the relational form, and SQL commands are created to allow data from subservient databases to be obtained to create a virtual

database residing in the host computer system satisfying the requirements of the global integrated schema.

**Heckerman et al** (U.S. Patent 6,216,134) – teaches a system that provides for the graphic visualization of the categories of a collection of records. The graphic visualization is referred to as "category graph." The system optionally displays the category graph as a "similarity graph" or a "hierarchical map." When displaying a category graph, the system displays a graphic representation of each category. The system displays the category graph as a similarity graph or a hierarchical map in a way that visually illustrates the similarity between categories. The display of a category graph allows a data analyst to better understand the similarity and dissimilarity between categories. A similarity graph includes a node for each category and an arc connecting nodes representing categories whose similarity is above a threshold. A hierarchical map is a tree structure that includes a node for each base category along with nodes representing combinations of similar categories.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhan M. Syed whose telephone number is 571-272-7191. The examiner can normally be reached on 8:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/F. M. S./  
Examiner, Art Unit 2165

/Neveen Abel-Jalil/  
Primary Examiner, Art Unit 2165